

Appl. No. 09/896,039  
Amendment dated October 24, 2005  
Reply to Office Action mailed July 1, 2005

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended): A method for administering portal security for an object, comprising the steps of:

extracting a native security setting comprising identities of external users or external groups, or both, from a native environment of the object;

mapping, according to a predetermined process that is executed according to information maintained in a portal database, the native security setting into a portal security setting associated with a portal that comprises a metadata object; and

associating in the portal said portal security setting with the object according to a predetermined security relationship;

instantiating the predetermined security relationship between the metadata object and the corresponding native security setting;

granting viewing or exposure access to the object by a particular user or group, or combinations thereof, and

wherein said information maintained in the portal database comprises:

portal user and portal group information including membership information relating the portal users to portal groups; and

one or more synchronization maps that maps external groups or domains, or both, to one or more intermediate sets of identifiers.

Claim 2 (currently amended): The method of claim 1, wherein the native security setting settings comprising comprises an identity of an entity external to the portal having a predetermined security relationship with the object in its

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native environment, the portal comprising a metadata object corresponding to the object, and wherein the mapping comprises further comprising the steps of: mapping the external entity into a corresponding portal entity; and instantiating the predetermined security relationship between the metadata object and the corresponding portal entity.

Claim 3 (currently amended): The method of claim 2, wherein said predetermined security relationship comprises is viewing access.

Claim 4 (currently amended): The method of claim 2, wherein the native security settings comprising identities of external users and external groups having have the predetermined security relationship with the object in its native environment, further comprising the steps of:  
—— mapping the external users and external groups into corresponding portal users and groups according to a predetermined mapping process; and  
—— associating the corresponding portal users and portal groups with the object according to the predetermined security relationship.

Claim 5 (canceled)

Claim 6 (currently amended): The method of claim 5, wherein said one or more maps information maintained in the portal database comprises:

portal user and portal group information including membership information relating the portal users to portal groups; and

a first synchronization map that maps external domains to an intermediate set of domain identifiers; and

a second synchronization map that maps external groups to an intermediate set of group identifiers.

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**Claim 7 (original):** The method of claim 6, wherein said portal users are identified by a concatenation of a portal domain identifier and a user name used by the external domain of the user, and wherein said portal groups are identified by a concatenation of a portal domain identifier and a group name used by the external domain of the group.

**Claim 8 (original)** The method of claim 7, said predetermined mapping process comprising the steps of:

- forming a reflexive set of external users and external groups having access to the object, each member of the reflexive set being expressed as a concatenation of the external domain and the external user or external group;
- mapping each external domain indicated in each of the external users and external groups into to one or more portal domains using the first synchronization map;
- mapping each external group to one or more portal simple group names using the second synchronization map;
- forming a candidate set of all possible pairings between (i) all indicated external and portal domains, and (ii) all indicated external group and portal simple group names;
- comparing the candidate set to said portal user and portal group information; and
- deleting from the candidate set any member not appearing in said portal user and portal group information;
- wherein the remaining members of the candidate set represent the corresponding portal users and portal groups having access to the object.

**Claim 9 (currently amended):** A corporate portal apparatus system, comprising one or more processor readable storage devices having processor readable code embodied thereon for programming a one or more processors to perform a

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method of administering portal security for an object, said processor readable code comprising component modules including:

a crawler for accessing external objects in external domains;

a security extraction utility for extracting native security information, comprising identities of external users or external groups, or both, corresponding to the external objects from one or more security systems of the external domains; and

a database comprising information for mapping, according to a predetermined process that is executed according to information maintained in a portal database, the extracted native security information into a security system of the corporate portal that comprises a metadata object; and

wherein the apparatus comprises said one or more processors for performing said method which further includes instantiating the predetermined security relationship between the metadata object and the corresponding native security setting, and

wherein said information maintained in the portal database comprises:

portal user and portal group information including membership information relating the portal users to portal groups; and

one or more synchronization maps that maps external groups or domains, or both, to one or more intermediate sets of identifiers, and

wherein the security system of the corporate portal regulates exposure of portal metadata objects corresponding to the external objects based on the mapped security information.

Claim 10 (currently amended): The corporate portal apparatus system of claim 9, further comprising a synchronization agent for accessing external user and external group information from the external domains, wherein said database comprises information derived at least in part from said external user and external group information.

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Claim 11 (currently amended): The corporate portal apparatus system of claim 10, further comprising an administrative user interface for assisting a portal administrator in populating said database using information that includes said external user information and said external group information.

Claim 12 (currently amended): The corporate portal apparatus system of claim 11, wherein said synchronization agent is adapted and configured to extract user and group information from external domains ~~having directory types of: Windows NT, LDAP, or ODBC.~~

Claim 13 (currently amended): A One or more computer readable media encoded with a processor-readable computer program product for use in implementing a method of administering portal security for an object, the method comprising:

computer code for extracting a native security setting comprising identities of external users or external groups, or both, from a native environment of the object;

computer code for mapping, according to a predetermined process that is executed according to information maintained in a portal database, the native security setting into a portal security setting associated with a portal that comprises a metadata object; and

computer code for associating in the portal said portal security setting with the object according to a predetermined security relationship;

instantiating the predetermined security relationship between the metadata object and the corresponding native security setting; and

granting viewing or exposure access to the object by a particular user or group, or combinations thereof, and

wherein said information maintained in the portal database comprises:

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portal user and portal group information including membership information relating the portal users to portal groups; and  
one or more synchronization maps that maps external groups or domains, or both, to one or more intermediate sets of identifiers.

Claim 14 (currently amended): The one or more computer readable media ~~computer program product~~ of claim 13, wherein the native security setting ~~settings comprising~~ comprises an identity of an entity external to the portal having a predetermined security relationship with the object in its native environment, ~~the portal comprising a metadata object corresponding to the object, and wherein the mapping comprises further comprising computer code for~~ mapping the external entity into a corresponding portal entity; and ~~computer code for instantiating the predetermined security relationship between the metadata object and the corresponding portal entity.~~

Claim 15 (currently amended): The one or more computer readable media ~~computer program product~~ of claim 14, wherein said predetermined security relationship comprises is viewing access.

Claim 16 (currently amended): The one or more computer readable media ~~computer program product~~ of claim 14, wherein the native security settings ~~comprising identities of external users and external groups having~~ have the predetermined security relationship with the object in its native environment, ~~further comprising the steps of:~~  
—— ~~computer code for mapping the external users and external groups into corresponding portal users and groups according to a predetermined mapping process; and~~  
—— ~~computer code for associating the corresponding portal users and portal groups with the object according to the predetermined security relationship.~~

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Claim 17 (canceled)

Claim 18 (currently amended): The one or more computer readable media ~~computer program product~~ of claim 17, wherein said one or more maps ~~information maintained in the portal database~~ comprises:

~~portal user and portal group information including membership information relating the portal users to portal groups; and~~

a first synchronization map that maps external domains to an intermediate set of domain identifiers; and

a second synchronization map that maps external groups to an intermediate set of group identifiers.

Claim 19 (currently amended): The one or more computer readable media ~~computer program product~~ of claim 18, wherein said portal users are identified by a concatenation of a portal domain identifier and a user name used by the external domain of the user, and wherein said portal groups are identified by a concatenation of a portal domain identifier and a group name used by the external domain of the group.

Claim 20 (currently amended): The one or more computer readable media ~~computer program product~~ of claim 19, said computer code for mapping the external users and external groups into corresponding portal users and groups according to a predetermined mapping process comprising:

computer code for forming a reflexive set of external users and external groups having access to the object, each member of the reflexive set being expressed as a concatenation of the external domain and the external user or external group;

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computer code for mapping each external domain indicated in each of the external users and external groups into to one or more portal domains using the first synchronization map;

computer code for mapping each external group to one or more portal simple group names using the second synchronization map;

computer code for forming a candidate set of all possible pairings between (i) all indicated external and portal domains, and (ii) all indicated external group and portal simple group names;

computer code for comparing the candidate set to said portal user and portal group information; and  
computer code for deleting from the candidate set any member not appearing in said portal user and portal group information, wherein the remaining members of the candidate set represent the corresponding portal users and portal groups having access to the object.